DARPA-BAA-16-41
Dispersed Computing
Frequently Asked Questions

As of August 24, 2016

- Q35. In DARPA's vision for DCOMP, who is responsible for supplying the applications that execute the computational tasks for dispersed computing and their profiles? Can we assume that a set of suitable applications are available from a repository, along with profile information that characterizes the computational requirements of each application, and that the actual profiling is not in the scope of DCOMP?
- A35. Proposals may make this assumption. However, technical approaches that actively trade computational resources against performance (speed, accuracy) in a mission-aware manner will be viewed favorably.
- Q34. Looking at "E. Program Schedule and Milestones" in BAA page 12, I see "Proposed Test Plans," "Integration Plan," and "Field Exercise Proposals." Are we supposed to prepare these after the proposal is selected for funding? If so, will we need to describe only high-level, brief descriptions on these activities in the proposal? Or do we not need to describe them at all in the proposal?
- A34. These plans and proposals will be formulated as a part of contracted activities for proposals that are funded. BAA responses should include these milestones and should at least briefly describe the envisioned activities.

As of August 12, 2016

- Q33. In the section that describes the Cover sheet, we must list: "Award instrument requested: procurement contract (specify type) or OT". Can we list Cooperative Agreement here, as it is our understanding that it is not a "type" of procurement contract? Secondly, if we do select to submit via Cooperative Agreement, what additional cost volume requirements will be needed (such as those listed in Volume 2 Cost Proposal sections iv. "Proposals Requesting a Procurement Contract" and v. "Proposals Requesting an Other Transaction for Prototypes Agreement")?
- A33. It is up to the proposer to identify the type of award instrument it wishes to receive, but the contracting officer makes the final determination of the appropriate award mechanism. Most for profit corporations do not propose cooperative agreements because it is not appropriate to use any funds obligated under a grant or cooperative

- agreement to pay for fee. If you intend to propose a cooperative agreement, you must submit the proposal via the Grants.gov website vs. the DARPA submission portal.
- Q32. Section E. Program Schedule and Milestones on page 12 of the BAA includes an activity line and milestones for "Range Testing". The term "Range Testing" does not appear anywhere else in the BAA. Please clarify what is the meaning of this term and activity and milestones.
- A32. Range tests in both Phase 1 and Phase 2 are intended to be precursors to field exercises, and as such may include risk reduction experiments and demonstrations within performers' own testbeds or in testbeds that the Government establishes separately. The nature of these tests has not yet been defined within the program.
- Q31. For the "Project Demonstrations" and "Multi-Project Demos" shown in the notional program schedule and milestones on page 12, what will be the duration of these events (how many days)?
- A31. These demos are not intended to be formal events, but rather milestones for individual projects to display their capabilities at the dates indicated. At this point, the program is not specifying durations or formats. Proposers should describe envisioned demonstrations as a part of their submissions.
- Q30. For the same notional program schedule and milestones on page 12, what will be the duration (number of days) of the "range testing" events.
- A30. For planning purposes, proposers can assume three days of testing activities for each event.
- Q29. Regarding the Field Exercise Option, on Page 11 of the BAA, it states that "proposals should reflect a nominal two-week effort by two personnel, along with associated travel, to Arlington, VA." For planning purposes, does this mean each exercise is intended to be one week long? Or is it two weeks per exercise?
- A29. Two weeks for each exercise.
- Q28: Would a solution that proactively pushes content to NCPs and/or users be in scope for any of the TAs within this program?
- A28: No. Technical approaches that focus on the management of (largely static) content are not of interest in this program.

Q27: Where is the excel template referenced on page 21 of the BAA located?

A27: The excel template has been uploaded along with Amendment 1 to FedBizOpps and Grants.gov. It can be found at:

https://www.fbo.gov/index?s=opportunity&mode=form&tab=core&id=13da4def88d9dc1 0974fb6fe50d0a3a5& cview=0

Or

http://www.grants.gov/web/grants/view-opportunity.html?oppId=285415

Q26: We have developed an approach for communication, processing and storage in intermittently connected (wireless) networks. Is this idea in scope?

A26: Distributed computing and processing techniques are in scope for TA1. Content dissemination and storage techniques are not within the program's scope. All submissions must clearly explain why the approaches go well beyond prior art.

Q25: Will TA1 and TA2 performers collaborate on API definitions?

A25: Probably, if they are selected for TA3.

Q24: Do TA1 performers need to address transactional properties?

A24: That is up to the performer to decide.

Q23: Can TA1 performers assume that some processing steps have hard deadlines?

A23: This is desirable, but is up to the performer to decide whether to provide that capability.

Q22: For untrusted NCPs, should TA1 performers address the correctness of processing steps?

A22: This is not a focus of the program, but is up to the performer to decide.

O21: Should TA1 be concerned with collusion between NCPs?

A21: This is not a principal focus of the program, but performers are free to propose solutions.

Q20: How will Integration, Test and Evaluation (IT&E) be handled in this program given that there is no evaluation team?

A20: Each performer will handle their own.

Q19: Is the program seeking sophisticated authentication schemes?

A19: Advanced security features are not a principal focus of this program.

Q18: Are NCPs expected to dynamically generate new logic autonomously?

A18: This is one approach.

Q17: Will the proposers' day slides be published?

A17: Yes, to the DARPA program website.

Q16: Is there a taxonomy or specification of specific computational tasks to address? Or should proposals address all conceivable computational problems?

A16: Proposals should provide specific examples, but indicate the solution's scope of applicability.

Q15: Can you provide some examples as to what the field exercises may look like?

A15: Field exercises are TBD, however they may include Government testbeds.

Q14: Are network discovery technologies part of the scope? Eg – finding new NCPs?

A14: Yes.

Q13: Are there any assumptions about the computational hardware and network hardware?

A13: No, proposals should specify what type of hardware the solutions would require.

Q12: Is hard real time interesting for the program?

A12: Yes.

Q11: What should we assume about the density of NCPs in the WAN when Dispersed Computing is deployed?

A11: The number and density of available NCPs might vary widely. Do not assume that all nodes are NCPs.

Q10: Is the integration plan due during Phase 1 or the TA3 option?

A10: An integration plan is not required.

Q9: Are the two field exercises and range testing milestones part of the base or option? Are they to be included in the estimated effort mentioned in part 1D of the BAA?

A9: It is part of the field exercise option. See page 11 of the BAA.

Q8: Will performers participate in single or multiple TA3 teams? Should options be sized to support work with a single or multiple projects?

A8: Initially assume a single team and project.

Q7: To support access to secret data on the TA3 activity, can we propose to sponsor staff eligible for clearances who do not otherwise have clearances?

A7: Clearances may be required only for field exercise and not TA3. It is acceptable to propose staff who are eligible for clearances. Refer to page 17 of the BAA.

Q6: Can you clarify which TA has primary responsibility of coordinating and controlling Networked Computation Point (NCP) actions.

A6: All projects should incorporate control and coordination of NCPs for what they are trying to do.

Q5: Why a daemon, why not distributed control?

A5: Solutions that offer distributed control are desirable. See Pages 8 and 9 of the BAA.

Q4: Whose hardware? Ours or an adversary's?

A4: Assume that hardware is owned and installed by a known, trusted entity.

Q3: How is software installed? Physical contact or over the network?

A3: Over the network via channels established for the purpose. See Page 10 of the BAA.

Q2: There are few mentions of security in the BAA and in your presentation. Could you elaborate on the security aspects that we will need to take into account?

A2: The extent to which security is to be addressed in proposed systems is up to the proposer. Node and system security are not intended to be major focal points of research efforts in this program.

Q1: Would a proposed solution that aims to solve part of the problem, either for TA1 or TA2, be considered?

A1: No.